



Chairperson: Bob Wyatt, NW Natural  
Treasurer: Frederick Wolf, DBA, Legacy Site Services for Arkema

October 2, 2014

Lori Cohen  
U.S. Environmental Protection Agency, Region 10  
1200 Sixth Avenue, Suite 900  
Seattle, Washington 98101-3140

**Re: LWG Unresolved Comments on RI Sections 5 and 10  
(Lower Willamette River, Portland Harbor Superfund Site, USEPA Docket No: CERCLA-10-2001-0240)**

Dear Lori:

Thank you for your September 15, 2014 letter proposing that the EPA and LWG senior managers take up unresolved issues in Section 5 of the Remedial Investigation now while the EPA and LWG project managers continue their discussion of unresolved Section 10 issues. The LWG appreciates EPA's willingness to continue to negotiate RI Sections 5 and 10, but we are concerned with EPA's proposal to address these sections separately. EPA and the LWG agreed several months ago to concurrently review and resolve these sections because of their interconnectedness. This letter provides the LWG's suggested modifications to EPA's proposal.

Most importantly, we believe it would be productive for the EPA and the LWG senior managers to step back for a moment from the specific details of Sections 5 and 10 to assess whether EPA and the LWG share a common understanding of the Portland Harbor study area as a whole and, if we do not, to determine whether the distance between our disparate visions can be bridged. We suggest this because EPA's revisions to RI Sections 5 and 10 appear to be based on a conceptual understanding of the Portland Harbor study area--where contamination exists and how that contamination interacts with the physical and biological environments-- that is fundamentally different than the LWG's understanding. As you know, EPA's Sediment Guidance emphasizes that a sound conceptual site model is an important foundation for the evaluation of alternatives in the FS and, ultimately, for the selection of remedies that can be implemented through settlement. The LWG therefore believes that it is critical for us to address our differences about the conceptual site model now so as to streamline and focus discussion of the technical details.

We propose that EPA and LWG senior and project managers use their October meeting to work through the similarities and differences in our respective understandings of Portland Harbor at a very high level. We then propose that the project managers use the outcome of that meeting to make a further attempt to resolve outstanding Section 5 and 10 issues concurrently, for all of the reasons that EPA originally agreed that it was appropriate for the LWG to undertake a single combined review of EPA's edits to Sections 5 and 10. In this context, as requested by

your September 15 letter, the LWG is enclosing the list of specific changes we believe are necessary to Section 5 to support the robust Section 10 conceptual site model required for the FS.

In order to focus the discussion we propose, we have identified several apparent differences between the LWG's understanding of the site and EPA's. Based upon the data collection and evaluation efforts over the last fourteen years, the LWG understands Portland Harbor to present reasonably well-defined areas of elevated contaminant concentrations, some of which overlap. These areas of elevated concentrations are primarily located near shore in the vicinity of current or former upland sources and are surrounded by large areas of relatively lower concentrations of contaminants. Subsurface concentrations tend to be higher than surface concentrations, suggesting that much of the contamination was released historically rather than in recent years.

A few persistent bioaccumulative contaminants, especially PCBs, present the most widespread potentially unacceptable risk to both human and ecological receptors through various consumption pathways, but a range of other contaminants also pose unacceptable risk to humans, fish, wildlife and benthic-dwelling organisms in localized areas. All of these contaminants within Portland Harbor are also present in surface water and sediments upstream of the Portland Harbor. The presence of such contaminants and physical properties within the river (e.g., organic carbon content and particle size) will impose limits on the contaminant reductions that can reasonably be achieved at the site.

Further, the LWG sees the riverbed in the study area as mostly stable and often depositional, especially in the near shore areas where contaminants have accumulated over time. These characteristics exist because the river widens and deepens as it enters Portland Harbor, and because of the downstream hydrological influence of the Columbia River. Elevated concentrations of contaminants in subsurface sediments in these areas are thus relatively immobile and pose a reduced risk. Several lines of evidence support the finding that natural recovery is occurring and will significantly contribute in general to reduced concentrations of contamination in sediments over time in these areas. Other areas are subject to erosion through natural forces or human activity over time.

EPA's revisions to the RI, particularly to Section 10, our discussions with EPA regarding the FS and comments by EPA in various public forums suggest to us that EPA does not share our fundamental understanding of the physical properties, chemical distribution and risk potential of the Portland Harbor study area. For example, EPA has removed from RI Section 10.2, the "chemical-specific conceptual site model" for PCBs, almost all discussion of specific PCB sources to Portland Harbor and the likely correlation of those sources to nearby sediment PCB concentrations. Instead, concentrations are described in relative terms by general reference to a whole river mile or off-channel feature. All discussion of PCB risk has been deleted from the PCB conceptual site model. This suggests to us that EPA may not see the connections we do between congener-specific PCB sources, areas of sediment contamination connected to those sources, and associated risk. Similarly, EPA has stated on several occasions that it disagrees with the LWG about the degree to which natural recovery is occurring in the Portland Harbor and deleted the entire Section 7.5 of the Draft RI that discussed "other lines of evidence" for natural recovery.

The LWG had hoped that EPA's final revisions to the RI would clarify the extent of our agreement or disagreement on these fundamental questions through the development of a robust conceptual site model. As we noted in our August 29, 2014 comments on RI Section 10, EPA's sediment guidance stresses the importance of a thorough CSM:

"For sediment sites, perhaps even more so than for other types of sites, the CSM can be an important element for evaluating risk and risk reduction approaches. \*\*\* Essential elements of a CSM generally include information about contaminant sources, transport pathways, exposure pathways, and receptors. Summarizing this information in one place usually helps in testing assumptions and identifying data gaps and areas of critical uncertainty for additional investigation. The site investigation is, in essence, a group of studies conducted to test the hypotheses forming the conceptual site model and turning qualitative descriptions into quantitative descriptions. The initial conceptual model should be modified to document additional source, pathway, and contaminant information that is collected throughout the site investigation. \*\*\* A good CSM can be a valuable tool in evaluating the potential effectiveness of remedial alternatives. As noted in the following section on risk assessment, the CSM should capture in one place the pathways remedial actions are designed to interdict to reduce exposure of human and ecological receptors to contaminants." Sediment Guidance, §2.2.

As your September 15 letter states, EPA's version of Section 10 is just a brief summary of prior sections of the RI. Because it does not develop and integrate that information into a comprehensive technical vision of the site and how it functions physically, chemically and biologically, the LWG still does not understand whether, or to what extent, we share EPA's vision.

As our August 29 comments on EPA's draft FS section 1 note, all conceptual site model information has similarly been removed from the FS. Although we have had many months of technical conversations with EPA about the FS and EPA has identified some of the conclusions it will draw in the FS, EPA has not provided details of its methodology that would allow us to understand how EPA has drawn those conclusions through the integration of data collected in the RI. For example, your September 19 email provides the first set of deposition calculations we have received from EPA. Although we certainly have the bathymetry data, EPA has not shared its methodology for the calculations with us, and therefore we can only guess at how EPA might be evaluating the bathymetry data differently than we are.

Finally, we would like to clarify a few points raised by your September 15 letter. First, we do not understand your statement that "EPA cannot agree to [revert to LWG text in RI Section 5] because we disapproved that version." According to the September 24, 2013 RI Process Agreement, the purpose of EPA providing revised sections of the RI to the LWG for a 30 day review and informal resolution period is for the parties to attempt to resolve issues arising out of EPA's editing of the RI. In many cases (indeed, in many cases in Section 5 itself), informal discussion between EPA and the LWG has in fact resulted in EPA agreeing to reinsert text from the 2011 draft Final RI based on the LWG's explanation that this text is important to the RI. We believe it is inconsistent with the RI Process Agreement (as well as with the dispute resolution provision of the Consent Order) for EPA to state categorically that it "cannot"

reinstate information provided in the LWG's 2011 draft Final RI because it has already made a final decision to disapprove that report.

Second, your letter states that the "nature of contamination" discussion EPA removed from Section 5 was not used in the LWG's August 2011 draft Final RI. In fact, the 2011 draft Final RI did utilize this information to develop and present a conceptual site model for Portland Harbor (per EPA comments on the 2009 Draft RI). The information associated with the nature of contamination is discussed throughout Section 5, and elaborated upon in Sections 6.1 and 10.2. The collection of this data and the analysis presented in the 2011 draft Final RI were performed in accordance with the EPA-approved data quality objectives presented in the 2004 Programmatic Work Plan (Tables 7.1 through 7.10 and 8.1 through 8.3).

Third, EPA has not previously advised the LWG that it "has neither conducted a quality assurance review of [the nature of contamination] information nor used it for the analysis of or conclusions with regard to the nature and extent of contamination at the Site." This is troubling to the LWG because EPA has previously approved the field sampling and quality assurance plans associated with these data, approved incorporating these data as part of the final RI and FS data sets,<sup>1</sup> and approved the data quality objectives associated with these data (i.e., assessing the nature of contamination to evaluate potential sources and assess transport of contaminants).<sup>2</sup>

Last, in response to your point that EPA was expecting further discussion on Section 10 issues, during our August 15, 2014 technical discussion with EPA on RI Section 10, the LWG identified the specific information and text EPA had deleted from the 2011 Final Draft RI and requested it be reinserted. The LWG representatives identified why this information and text was needed in order to fulfill the EPA-approved data quality objectives for the RI and FS, and to develop and present a conceptual site model in accordance with EPA guidance. After discussion of the deleted information, the EPA project manager disagreed that the information was critical and terminated the meeting. For the reasons stated above, the strength of the conceptual site model is a critical issue to the LWG, and so the LWG followed the procedure set out in the RI Process Agreement by elevating its concerns about Section 10 to the EPA and LWG senior managers. We did not understand that EPA's project team "expected and preferred more time to resolve issues with the LWG," but we would welcome the opportunity to participate in such discussions in the context of our conviction that a robust conceptual site model is critical to a technically sound FS.

---

<sup>1</sup> March 24, 2008

<sup>2</sup> Programmatic Work Plan Approval, June 29, 2004

We look forward to meeting with EPA to discuss these matters further.

Sincerely,



Margaret D. Kirkpatrick  
The Lower Willamette Group

cc: Kristine Koch, U.S. Environmental Protection Agency, Region 10  
Sean Sheldrake, U.S. Environmental Protection Agency, Region 10  
Confederated Tribes and Bands of the Yakama Nation  
Confederated Tribes of the Grand Ronde Community of Oregon  
Confederated Tribes of Siletz Indians of Oregon  
Confederated Tribes of the Umatilla Indian Reservation  
Confederated Tribes of the Warm Springs Reservation of Oregon  
Nez Perce Tribe  
Oregon Department of Fish & Wildlife  
United States Fish & Wildlife  
Oregon Department of Environmental Quality  
LWG Legal  
LWG Repository